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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,100

10/30/2003

Hilal Ezzeddine

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EXAMINER

NGUYEN, TUYEN T

ART UNIT

PAPER NUMBER

2832

MAIL DATE

DELIVERY MODE

03/17/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/699,100	Applicant(s) EZZEDDINE, HILAL	
	Examiner TUYEN T. NGUYEN	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 24-27 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figure 2 [AAPA] Masahiro et al. [JP 61-266069.]

AAPA discloses a transformer comprising:

- a common mode winding structure including first and second coils [5, 6]; and
- a differential mode winding structure including first and second coils [7, 8] electrically coupled with the common mode winding structure.

wherein the coils having the same length of $\lambda/4$.

AAPA discloses the instant claimed invention except for a capacitor.

Misahiro et al. discloses a mode-switching transformer [2] having only one capacitor [30, 40] connected in series with at least one coil/winding [21, 23.]

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include a capacitor in series with the common mode winding structure of AAPA, as suggested by Misahiro et al., for the purpose of reducing common mode noise.

Regarding claim 4, the specific location of the capacitor would have been an obvious design consideration based on the intended application/environment use.

Regarding claims 6 and 9-10, the specific frequency of the transformer would have been an obvious design consideration based on the intended application/environment use.

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Claims 3, 5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Misahiro et al. as applied to claim 1 above, and further in view of Waffenschmidt [US6,529,363.]

AAPA in view of Misahiro et al. discloses the instant claimed invention except for the specific of the coil/winding.

Waffenschmidt discloses a multi-layered transformer comprising at least one coil formed of a plurality of conductive layers [1, 2, 3, 4, 5, 6] with insulating layer [8] disposed between the conductive layers and a capacitor [9] coupled to the at least one coil.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coil/winding design of Waffenschmidt in AAPA, as modified, for the purpose of simplying

Response to Arguments

Applicant's arguments filed 12/11/2009 have been fully considered but they are not persuasive.

Applicant argues that:

[1] There is no reason to combine AAPA with Masahiro; and

[2] The combination of AAPA with Masahiro would not provide lowering a central frequency of a bandwidth of the transformer as recited in claim 1.

The examiner disagrees.

Regarding [1], in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some

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teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both AAPA and Masahiro discloses a transformer for use in switching application. A skilled artisan would have been motivated to seek a teaching of capacitor connected in series of Masahiro to use in AAPA for the purpose of reducing common mode noise.

Regarding [2], the structure of AAPA in view of Masahiro, as combined, would provide lowering a central frequency of a bandwidth of the transformer as recited in claim 1.

Allowable Subject Matter

Claims 2 and 24-27 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/TUYEN T NGUYEN/
Primary Examiner, Art Unit 2832